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Letter dated 17 April 2002 from the Secretary-General addressed to the President of the Security Council

I have the honour to convey the attached communication, dated 11 April 2002 from the Director General of the International Atomic Energy Agency addressed to you.

(*Signed*) Kofi A. **Annan**

02-34213 (E) 220402

Annex

[Original: Arabic, Chinese, English, French, Russian and Spanish]

Letter dated 11 April 2002 from the Director General of the International Atomic Energy Agency addressed to the President of the Security Council

I refer to Security Council resolution 1373 (2001) of 28 September 2001, in which the Council noted with concern the close connection between international terrorism and illegal movement of nuclear materials and, in that regard, emphasized the need to enhance coordination of efforts at the national, subregional and international levels in order to strengthen a global response to this serious challenge and threat to international security. The Council also called upon all States, inter alia, to find ways of intensifying and accelerating the exchange of operational information, especially regarding the threat posed by the possession of weapons of mass destruction by terrorist groups, and to become parties as soon as possible to the relevant international conventions and protocols relating to terrorism.

As mentioned in my letter of 7 December 2001 (see S/2001/1164), the General Conference of the International Atomic Energy Agency, in its resolution GC(45)/RES/14 B of 21 September 2001, requested me to review thoroughly the activities and programmes of the Agency with a view to strengthening the Agency's work relevant to preventing acts of terrorism involving nuclear material and other radioactive materials. An initial report pursuant to that request was considered by the Agency's Board of Governors at its session in November 2001. Excerpts from that report were contained in the attachment to my letter.

At the request of the Board, I continued consultations with member States to review our proposed response to the threat of nuclear terrorism and submitted the outcome for the Board's consideration at its March 2002 session. The Board approved in principle the Agency's plan of action which covers eight areas: physical protection of nuclear material and nuclear facilities; detection of malicious activities (such as illicit trafficking) involving nuclear and other radioactive materials; strengthening of State systems for nuclear material accountancy and control; security of radioactive material other than nuclear material; assessment of safety/security related vulnerabilities of nuclear facilities; response to malicious acts or threats thereof; adherence to international agreements and guidelines; and nuclear security coordination and information management for nuclear security related matters. In this context, I should emphasize that the activities proposed are not a substitute for national measures, nor can they diminish the primary responsibility of the State on all matters of security; rather they are designed to supplement and reinforce national efforts in areas where international cooperation is indispensable to the strengthening of nuclear security. Excerpts from my latest report to the Board on protection against nuclear terrorism are contained in the attachment to the present letter.

The Board agreed to the establishment of an extrabudgetary fund and called upon member States as a matter of urgency to contribute, on a voluntary basis, to such funding. The Agency has already received additional extrabudgetary contributions to support its response to the global problem of combating the risk of

nuclear terrorism. These funds will be utilized for the immediate implementation of the action plan noted above.

I should be grateful if you could bring this letter and its attachment to the attention of the members of the Security Council and arrange for its distribution as a document of the Council.

(*Signed*) Mohamed **ElBaradei**

Attachment

Protection against nuclear terrorism: specific proposals

Excerpts from a Report by the Director General
to the Board of Governors
of the International Atomic Energy Agency
March 2002

BACKGROUND

1. In the aftermath of the events of 11 September 2001, and in response to a request from the General Conference at its meeting immediately following those events, the Director General submitted a report to the Board of Governors entitled *Protection Against Nuclear Terrorism*. The report identified possible threats from acts of nuclear terrorism. It summarized the Agency's ongoing work in areas relevant to the prevention and mitigation of the consequences of such acts and outlined proposals for a number of "new and/or enhanced activities" (i.e. those not among the approved and budgeted programmatic activities) that the Secretariat considered necessary for responding effectively to threats of nuclear terrorism.

2. The Board of Governors considered the report at its session in November 2001. It urged Member States to provide the necessary financial support for the activities proposed by the Secretariat. The Director General was requested, in consultation with Member States, to review the proposed response of the Agency to the threat of nuclear terrorism and to submit a revised report for the Board's consideration at its March 2002 session.

3. The present report reflects the Secretariat's efforts to refine the original proposals, taking into account the views expressed by Member States. It describes with greater specificity the activities proposed by the Secretariat and their priorities.

ACTIVITIES SINCE NOVEMBER 2001

4. Since November 2001, the Secretariat has been able to take modest steps, within existing programmes, and within existing resources, to plan and initiate short term action on a number of activities[1] intended to respond to the increased threat of nuclear terrorism. This has only been possible, however, with a realignment of priorities, and associated reallocation of resources.

5. In connection with efforts to strengthen the physical protection regime, and in response to an invitation of the Director General, 43 States and the European Commission designated experts to participate in a meeting, held from 3 to 7 December 2001, of the Group of Legal and Technical Experts established to draft a "well-defined amendment to the Convention on the Physical Protection of Nuclear Material". After a general exchange of views, the Group was able to achieve a complete and detailed review of the scope of the potential amendments and agreed to continue its work at a second meeting to be held in March 2002.

[1] These include the convening of advisory group meetings, the carrying out of fact finding missions, the preparation of guidance material and the arrangement of training courses and workshops.

6. In early January, the Director General appointed a group of external experts, the Advisory Group on Nuclear Security (AdSec), to advise him "on the Agency's activities related to preventing, detecting and responding to terrorist or other malicious acts involving nuclear and other radioactive materials and nuclear facilities." The Group held its first meeting in February 2002.

CONFIDENTIALITY

7. The Agency has in place a regime for protecting confidential information that has functioned well over the years. This regime includes procedures that have been developed for the protection of specific categories of sensitive information, such as those related to safeguards confidential information.

8. The Agency has now taken additional steps to address Member State concerns about the protection of nuclear security related information which may be acquired or compiled by the Agency in the course of implementing the proposed measures. The existing confidentiality regime has been reviewed with a view to ascertaining whether there are additional measures for protecting nuclear security related information that should be implemented. In addition, a meeting of consultants was asked to look into the matter and to assist the Agency in identifying types of information requiring protection for security reasons, especially that related to the safety of radiation sources and of nuclear installations.

PROPOSED ACTIVITIES AND COST ESTIMATES

9. The threats to be addressed include the theft of a nuclear weapon, the acquisition of nuclear material to construct a nuclear weapon or to cause a radiological hazard, the acquisition of other radioactive materials to cause a radiological hazard, and violent acts against nuclear facilities to cause a radiological hazard:

a. *Theft of a nuclear weapon*: The theft of a nuclear weapon may be highly unlikely but it is a possibility that cannot be excluded – it would represent the most serious threat in terms of its potentially devastating consequences. To date, the Secretariat has not received any requests for assistance from States possessing nuclear weapons. Consequently, no activities to address this threat are proposed in the present report.

b. *Acquisition of nuclear material*: It is clear that there is a need to protect nuclear material at all times and at all locations, i.e. during its storage, use and transport, but that the level of protection varies from State to State. Actions are proposed to assist States in enhancing the physical protection of nuclear material and their ability to detect its loss and subsequent movement. The reported discovery of documents in Afghanistan showing that a terrorist organization was working towards building a nuclear weapon emphasizes the need to pursue this work vigorously.

c. *Acquisition of other radioactive material*: The security of other radioactive material is light in some States – keyed more to the protection of property than to radiological risk. As a consequence, radioactive sources are vulnerable to theft. Some are completely unprotected because they have become "orphaned" from regulatory control. Actions are proposed to assist States in developing controls and protection for radioactive material, in developing measures to detect their

theft and illicit trafficking, in locating and securing "orphan sources", and in responding to emergencies involving radioactive sources. The need for such measures has been demonstrated recently by the discovery in a Member State of two highly radioactive sources, and the Agency's work in assisting with their recovery and making them secure.

d. *Violent acts against nuclear facilities*: Protection against such acts involves both security and safety related measures. The Agency can help States to make facility specific assessments and co-ordinate the provision of assistance to implement necessary improvements. The Secretariat has already been approached by three States that would be interested in receiving general guidance on conducting their own security assessments, to be followed by an Agency review of the results.

Agency responses to address the above threats also include developing and promulgating standards, guidelines and recommendations, promoting adherence to international instruments, providing training to Member States where appropriate, and fostering information exchange.

10. The proposed activities would bring benefits for all States — including those without large nuclear programmes — by contributing to improved border controls, better protection of public health as a result of the increased security of sources, and the development of national mechanisms for response in the event of a radiological emergency. In addition, the development of a strengthened nuclear regulatory infrastructure through training would provide a more secure basis for the beneficial uses of radioactive sources in medicine, agriculture and water resources management.

Activity Areas

11. The Secretariat has regrouped the activities into eight areas:

I. Physical protection of nuclear material and nuclear facilities

Problems and issues to be addressed by the Agency: Adequate physical protection of nuclear material and nuclear facilities, including, in addition to the necessary technical measures, appropriate regulatory and administrative systems, is an essential element in the first line of defence against possible acts of terrorism. National measures for protecting nuclear material and facilities are uneven in their substance and application. There is wide recognition that the international physical protection regime needs to be strengthened. The means for providing direct and effective assistance to States in their efforts to evaluate, upgrade and/or establish the necessary technical measures and regulatory and administrative systems also need to be improved.

The *objective* is to further enhance the capacity of Member States to protect nuclear facilities, and nuclear material in use, storage or transport, against nuclear terrorism. This will be achieved, for example, by providing, on request, assessment services, together with associated advice and follow up actions to improve security arrangements at specific locations, by the provision of training, and through other supporting activities (such as the development of standards, guidelines and recommendations).

II. Detection of malicious activities involving nuclear and other radioactive materials

Problems and issues to be addressed by the Agency: Theft and illicit possession of, and illicit trafficking in, nuclear and other radioactive material are matters of international concern. If preventive measures fail, States need to have in place the means of detecting such incidents. There is currently no service available to assist States in evaluating their national detection capabilities, nor any internationally accepted guidelines for such detection capabilities – at borders or elsewhere – against which States can evaluate their national systems. In addition, the existing technology for the detection and monitoring of illicit trafficking, theft and illicit possession needs to be improved, and the staff of law enforcement organizations trained in the use of such technology.

The *objective* is to ensure that effective measures are in place to detect and interdict incidents of theft, illicit possession and illicit nuclear trafficking. This will be achieved, for example, by providing, on request, assessment services, training and technical support, and by co-ordinating the development by Member States of up-to-date detection instrumentation.

III. State systems for nuclear material accountancy and control

Problems and issues to be addressed by the Agency: An important first step against possible terrorist activities involving nuclear material is to ensure that all nuclear material in a State is properly accounted for at all times. The regulatory, technical and administrative mechanisms for achieving that end are commonly referred to collectively as State Systems for Accounting and Control (SSACs). An effective SSAC can deter terrorist activities and provide for their early detection. For an SSAC to be effective, a State must have in place legislative and regulatory systems requiring and ensuring that nuclear material is accounted for whether in storage, use or transport. The State must also have the technical capabilities necessary for performing measurements and analyses, and administrative systems to ensure proper recording and record-keeping. Although the Agency does have international training programmes on SSACs (in connection with the implementation of safeguards), there are currently no internationally agreed standards which would enable States to assess the effectiveness of their respective SSACs.

The *objective* is to ensure that all nuclear material in Member States is properly accounted for at all times. This will be achieved, for example, by providing assessment services, by co-ordinating technical support programmes provided by Member States, for example with respect to equipment upgrades and by training SSAC personnel.

IV. Security of radioactive material other than nuclear material

Problems and issues to be addressed by the Agency: The security of radioactive sources needs improvement in many States and is virtually non-existent in others. In order to protect the public and the environment from the radiological effects of possible terrorist acts, improved security needs to be provided in the acquisition, use and disposal of such sources, as well as the transport of radioactive material Moreover, events in recent years have revealed that a large number of significant radioactive sources are not under adequate control or are out of regulatory control (orphaned). These sources need to be located, secured and disposed of to reduce the risk of them being used to perpetrate malicious acts.

The *objective* is to improve national security measures with respect to radioactive material other than nuclear material and to ensure that significant, uncontrolled radioactive sources are brought under regulatory control and properly secured. This will be achieved by providing advisory services, by providing assistance to Member States in their efforts to identify, locate and secure or dispose of orphan sources, and through the preparation of standards, guidelines and recommendations.

V. Assessment of safety/security related vulnerability of nuclear facilities

Problems and issues to be addressed by the Agency: Although nuclear facilities are generally very robust structures, their design and operation need to be reviewed to identify systems or equipment vulnerable to malicious acts, such as sabotage. There does not currently exist a widely accepted methodology for identifying, assessing and addressing such vulnerabilities.

The *objective* is to strengthen the capability of Member States to assess the vulnerability of their nuclear facilities to possible malicious acts. This will be achieved through the development of a methodology to assist States in identifying vital areas in existing and new nuclear facilities and in assessing their protection against acts of sabotage or terrorism.

VI. Response to malicious acts, or threats thereof

Problems and issues to be addressed by the Agency: In the event of malicious acts (for example, illicit trafficking, theft or sabotage), a State needs to respond in an effective way to mitigate any effects of possible radiological emergencies. Experience has shown that not all States have adequate response capabilities or procedures. Possible terrorist threats involving the use of nuclear or other radioactive material bring an added dimension to be taken into account. The Agency's ability to assist States in responding to such incidents could be improved through the upgrading of its Emergency Response Centre.

The *objective* is to ensure that States and the Agency are able to respond effectively to the radiological aspects of acts of nuclear terrorism involving nuclear and other radioactive material. This will be achieved, for example, by strengthening the radiological emergency response of States through training and technical support, the development of standards, guidelines and recommendations, and the enhancement of the Agency's own arrangements to respond to radiological emergencies.

VII. Adherence to and implementation of international agreements, guidelines and recommendations

Problems and issues to be addressed by the Agency: There are a number of international agreements, guidelines and recommendations negotiated under the auspices of the Agency which are relevant to preventing nuclear and other radioactive material or nuclear facilities from becoming the target of terrorist activities. However, to be fully effective, universal adherence to and implementation of these international instruments are necessary. At present, a large number of States have not adhered to and/or implemented these instruments, and remain without the associated legal and regulatory framework.

The *objective* is to bring about the adherence to/implementation of international instruments relevant to the enhancement of protection against nuclear terrorism by a significantly increased number of States. This can best be achieved through outreach programmes to Member States through which the States' adherence to and implementation of such instruments could be encouraged, and solutions to the barriers thereto (e.g. inadequate legislation and/or regulatory structures) could be explored.

VIII. Nuclear security co-ordination and information management

Problems and issues to be addressed by the Agency: Effective assistance to a State in combating nuclear terrorism related threats requires measures based on an adequate understanding of the threat environment and the security situation pertaining in the State. This requires the compilation, evaluation and analysis of a wide range of internal and external information to support the activities of the Agency and Member States in nuclear security. In addition, to become effective, programmes implemented by States and international organizations require extensive co-ordination at both the international and the national levels. Better information on nuclear terrorism, actions taken to prevent such activities and progress in the implementation of support programmes needs to be made available to States and, as appropriate, to the general public.

The *objective* is to support and assist in the co-ordination of Agency and Member State activities to strengthen nuclear security. This will be achieved by establishing a well co-ordinated programme, by providing consolidated information, and through fostering information exchange with other international organizations.

Upgrades and Procurement

12. In the November document, the Secretariat included a proposal that would enable the Agency to respond expeditiously to urgent and severe problems identified in States. The proposal contemplated Agency assistance in the provision of equipment for physical protection upgrades at facilities and for detection equipment (for example, at border crossings), and in improving SSACs.

13. The Agency's assistance to States in enhancing the security of nuclear material, nuclear facilities and radioactive sources is at present primarily focused on: determining the general and specific needs of States; providing guidance to States on enhancing security; and, assisting States, upon request, in the appraisal of various aspects of their programmes. Recommendations are also provided on ways to improve both the national infrastructure and, where required, facilities, to bring overall security up to the standard of internationally accepted recommendations and practices. Although many of these recommendations for improvement are of high priority, there are countries where the resources are not available to implement them.

14. It is expected that, in many cases, State-to-State assistance would be available to satisfy the most significant needs. However, it is also anticipated that situations will be encountered where either money for a particular country is not available or a delay in finding support could be of concern. By way of example, this situation arose at a nuclear research reactor where, in the course of other activities, the Agency discovered that significant quantities of high enriched uranium were not adequately secured and that small fuel assemblies could easily be

stolen. Although the circumstances called for immediate action, State-to-State support was not readily available. Fortunately, on that occasion, the Agency was able to use extrabudgetary funds to make the necessary arrangements within a short period of time to secure the material in question.

15. It would be prudent for the Agency to have funds available from which to finance urgently required modifications rather than to forego such modifications or to await the results of the sometimes cumbersome and protracted process of securing State-to-State assistance. Physical upgrades, such as the provision of security systems and fences, for example, can be relatively expensive. Coupling this fact with the large number of installations which may be involved leads to the conclusion that the financing that will be required, for urgent upgrades alone, is likely to be substantial. Precise figures are difficult to estimate in advance, but the Secretariat's best judgement is that $20 million per year for the next three years for the provision of equipment for physical protection upgrades at facilities and for detection equipment at border crossings would be a reasonable figure until the situation could be assessed again in the light of actual experience.

FUNDING MECHANISMS

16. An analysis of comments provided by Member States on the funding mechanisms indicates that there is not yet consensus on the appropriate mechanism. However, there appears to be consensus on a number of related issues. Most States that commented on the funding of the "Upgrades and Procurement" activities recommended that such activities be addressed separately, and that they be funded through some voluntary mechanism. As regards funding of the other activities, all States seem to agree that flexibility (e.g. as provided by multi-year funding) is important. While many Member States support the establishment of a voluntary fund for those activities, a number of States also spoke of the eventual need for predictable assessed funding.

17. In light of the above, the Director General proposes the following:

a. The Director General will create an extrabudgetary fund for the receipt of voluntary contributions to the Agency in support of Agency activities described, generally, in paragraph 11, and in greater specificity in the more detailed description of proposed activities set out in Annex 1 to this document. This funding mechanism will be kept under review, and may be revisited in light of experience within the next year or two.

b. Should the Agency receive voluntary contributions to fund the activities described above in paragraphs 12–15 as "Upgrades and Procurement", the Director General will create an extrabudgetary fund for the receipt of such contributions.

CONCLUSION

18. The proposed activities presented in this report are the result of a co-ordinated Agency-wide effort to identify a comprehensive set of activities that would further contribute to the prevention and detection of, and response to, nuclear terrorism and threats thereof. They consist of a broad spectrum of activities which cut across a variety of ongoing Agency programmes. For the sake of transparency and ease of consideration by the Board, they are presented here as a separate package of measures, although they are all related to ongoing programmes. They would, at an appropriate later stage, be integrated, when and as approved,

into the existing programmes, subprogrammes and projects, but will be co-ordinated to ensure the effective and efficient use of Agency resources.

19. It is anticipated that, given the necessary financial and other resources, many of the outputs could be delivered within a period of three years, although a few could be completed within less time. However, there are a number of proposed activities which are foreseen to be ongoing. It should be noted that the proposed activities will continue to be reviewed internally with the assistance of the external Advisory Group on Nuclear Security. In making decisions in this regard, the Secretariat would be guided by the views of Member States and by progress that has been made towards the long term goals.[2]

20. In developing the proposals reflected in this report, the Secretariat has attempted to calculate, with a greater degree of precision, the cost of their implementation over a period of three years. The estimated costs are close to the initial projections for such activities. It is anticipated that $11.5 million will be required in the first year, $11.4 million in year two, and $10.7 million in year three. In addition, it is anticipated that some $20 million per year is needed for upgrades and procurement.

21. At its last meeting, the Board asked the Secretariat to indicate the priorities assigned to the proposed activities. After having reviewed all of the Member State comments, and notwithstanding that the Secretariat continues to believe that all the activities proposed in this report are important components of the overall strategy, it is the Secretariat's view that the following list reflects the highest priority activities:

- Increased number and scope of International Physical Protection Advisory Service (IPPAS) missions and other assessment services (e.g. regarding the safety/security vulnerability of nuclear installations).

- Locating and securing highly radioactive orphan sources.

- Assistance to Member States in implementing recommended improvements of State regulatory systems and security arrangements for nuclear material and nuclear installations.

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[2] The long term goals of this work are: comprehensive evaluation by all States of possible threats to their nuclear facilities and nuclear material; international standards established for the physical protection, safety and security of nuclear and other radioactive material, and universal adherence to these standards; effective physical protection systems in all States; improved overall capabilities of nuclear facilities to withstand acts of extreme violence; effective SSACs in all States; effective control and regulatory oversight of radioactive sources in all States; effective border monitoring for nuclear and other radioactive material installed at key crossing points; and effective system of international emergency response in the event of a radiological emergency caused by a malicious act.

- Promotion of adherence to international instruments.
- Increased training, and the development and conduct of new training with respect to improved security of nuclear and other radioactive material and nuclear facilities.

22. Should the Agency not receive the funds necessary to implement all of the proposed activities, the Director General will be guided by these priorities, the views of Member States and the advice of AdSec.

Annex I

Detailed description of proposed activities

I: PHYSICAL PROTECTION OF NUCLEAR MATERIAL AND NUCLEAR FACILITIES

Activity I.1: Developing standards, guidelines and recommendations for physical protection of nuclear material and nuclear facilities

Outcome: Availability in Member States of international consensus guidance to facilitate effective physical protection

Main outputs: Further guidance on physical protection will be developed to assist States in implementing their obligations under the Convention on the Physical Protection of Nuclear Material (CPPNM) and to supplement the general recommendations contained in INFCIRC/225/Rev.4. This may include, as appropriate, the preparation of a fifth revision of INFCIRC/225 to take into account the results of the current efforts to revise the CPPNM.

Activity I.2: Developing and improving physical protection methodology

Outcome: Ability of States to improve the physical protection of nuclear material and nuclear facilities in order to meet new threats

Main outputs: Methodologies will be established for developing and updating national design basis threat, for protecting nuclear facilities against an inside adversary, for identifying vital areas within a nuclear facility vulnerable to sabotage, and for preventing information technology from being used for terrorist purposes.

Activity I.3: Advisory services

Outcome: Awareness in Member States of changes required in physical protection measures to bring them into line with international practices

Main outputs: An expanded range of security related services based on the International Physical Protection Advisory Service (IPPAS) methodology will be developed. Modules and guidelines will be developed for the evaluation of the physical protection of: (a) nuclear power plants (including the evaluation of vulnerabilities of vital areas and equipment); (b) nuclear research reactors; (c) other nuclear fuel cycle facilities; (d) other nuclear research installations; and (e) nuclear transport.

Activity I.4: Providing for upgraded and improved physical protection of nuclear material, nuclear facilities and nuclear material in transport

Outcome: Improved physical protection of nuclear material, nuclear facilities and nuclear transport through more effective co-ordination of available bilateral and Agency resources to support required improvements in Member States based on recommendations generated in IPPAS missions

Main outputs: The Agency will increase the number of design basis threat workshops in Member States. Advice will be provided on the implementation of IPPAS recommendations to improve technical, administrative or regulatory systems. The Agency will co-ordinate available support for the implementation of those recommendations.[3]

Activity I.5: Training in physical protection

Outcome: Well trained staff at regulatory authorities and at nuclear facilities; increased awareness of the need for physical protection of nuclear material, nuclear facilities and transports at all times; and a recognition of the need to maintain a nuclear security culture

Main outputs: A comprehensive training programme will be offered to Member States, taking into account the different levels of need. New training courses will be developed on the implementation of INFCIRC/225, on the physical protection of nuclear power plants and research reactors, on the physical protection of nuclear fuel cycle facilities, and on evaluating the effectiveness of physical protection systems. Training will also be offered on the evaluation of physical protection of nuclear material during transport. Introductory training on IPPAS will be offered for new IPPAS participants.

II: DETECTION OF MALICIOUS ACTIVITIES INVOLVING NUCLEAR AND OTHER RADIOACTIVE MATERIALS

Activity II.1: Standards, guidelines and recommendations

Outcome: Availability of guidance to facilitate the establishment of the regulatory, technical and administrative systems required to detect and identify nuclear material and other radioactive material that may be involved in terrorist activities

Main outputs: Guidelines and recommendations will be developed for the detection and identification of nuclear and other radioactive materials that are the subject of illicit trafficking and other illegal activities. Criteria will be developed for checkpoint monitoring for radioactive material.

Activity II.2: Improved technology and instruments for detection of nuclear and other radioactive material in illicit trafficking

Outcome: More effective interdiction of illicit trafficking in nuclear and other radioactive materials

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[3] If necessary and urgent, and subject to availability of funding under "Upgrades and Procurement", the Agency may assist in the purchasing of relevant equipment.

Main outputs: ~~Tech~~nical guidance will be developed for relevant State authorities in respect of border monitoring equipment to detect illicit trafficking. The Agency will assist Member States in co-ordinating the development, testing and qualification of instruments for the detection of illicit trafficking of nuclear and other radioactive material.

Activity II.3: Advisory services

Outcome: Effective regulatory, technical and administrative systems to detect malicious acts involving nuclear and other radioactive material

Main outputs: The Agency will assist States, upon request, in appraising their capabilities to detect theft and illicit possession of, and illicit trafficking in, nuclear material and other radioactive material.

Activity II.4: Provision of training, technical support and equipment

Outcome: Well trained staff in law enforcement authorities, able to detect nuclear materials and other radioactive materials in malicious activities (e.g. illicit trafficking); model border crossing point with effective radiation monitoring

Main outputs: Regional and national training courses and workshops, as well as a "train-the-trainer" course, will be offered to Member States. One border crossing point will be established as a "model crossing point", with detection equipment to demonstrate the administrative and technical procedures for dealing with seizures of nuclear and other radioactive material.[4]

III: STATE SYSTEMS FOR NUCLEAR MATERIAL ACCOUNTANCY AND CONTROL

Activity III.1: Developing SSAC guidelines and recommendations

Outcome: Availability of guidance for assessing and improving State systems of accounting for and control of nuclear material (SSACs)

Main outputs: Up-to-date guidelines and recommendations will be prepared for the establishment, improvement and maintenance of an effective SSAC at the State level and the facility level. A handbook on nuclear material accounting, covering the recording of and reporting on nuclear material by States will be prepared.

Activity III.2: Advisory services

Outcome: Awareness in States of the level of compliance of SSACs with international requirements, guidelines and recommendations

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[4] If necessary and urgent, and subject to availability of funding under "Upgrades and Procurement", the Agency may assist in the purchasing of such equipment.

Main outputs: Upon request, international teams of experts will be assembled to evaluate SSACs (including the associated regulatory, administrative and technical systems) and to provide recommendations for improvements.

Activity III.3: Co-ordinated technical support programmes

Outcome: Improved capability of Member States to properly account for and control nuclear material; more effective use of bilateral resources to support required SSAC improvements. Enhanced co-operation among regional States

Main outputs: The project will make co-ordinated technical support programmes available to States in need of SSAC support, which will permit more effective use of resources in States that need SSAC improvements.

Activity III.4: SSAC upgrades

Outcome: Improved and more effective SSACs

Main outputs: Based on the findings of SSAC assessments and Agency evaluation missions,- the Agency will make recommendations for improvements and provide States with advice on obtaining, where appropriate, the necessary equipment.[5]

Activity III.5: SSAC training

Outcome: Well trained SSAC staff at regulatory authorities and nuclear facilities

Main outputs: A comprehensive training programme with international, regional and national training courses and workshops will be offered on a regular basis to States for SSAC personnel at the State and facility levels.

IV: SECURITY OF RADIOACTIVE MATERIAL OTHER THAN NUCLEAR MATERIAL

Activity IV.1: Enhanced ongoing activities

Outcome: Better control of significant radioactive sources in Member States

Main outputs: Training courses on the development and practical application of implementing national strategies for detecting and locating vulnerable sources will be held. National strategies will be modified to take account of the new perspectives on terrorism. A peer review service on major radiation sources, which is being established, will be expanded to include security, as well as safety, aspects. Regional workshops to follow up on the implementation of the Action Plan for the Safety and Security of

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[5] If necessary and urgent, and subject to availability of funding under "Upgrades and Procurement", the Agency may assist in the purchasing of such equipment.

Radioactive Sources will include a new emphasis on the security of radioactive sources. The Code of Conduct on the Safety and Security of Radioactive Sources will be reviewed with the objective of determining whether it can be enhanced with regard to security.

Activity IV.2: Standards, guidelines and recommendations on the security of radioactive sources

Outcome: Adequate guidance to Member States to establish effective security of radioactive materials, other than nuclear materials; the manufacture by States of radioactive sources less vulnerable to malicious acts

Main outputs: Safety standards requirements specifying the security necessary for Category I and II sources (as classified in the Code of Conduct of the Safety and Security of Radioactive Sources) will be published. A new procedure for appraising the security of significant sources against these requirements will be developed for use during expanded IPPAS missions. In addition, criteria for the design of Category I sources to minimize their vulnerability to malicious acts will be developed.

Activity IV.3: Assessing threats to, and vulnerabilities of, radioactive material consignments as potential targets for terrorist acts

Outcome: Reduced likelihood that radioactive material consignments would be targeted by terrorists or be vulnerable to acquisition and use by terrorists

Main outputs: Technical assessments will be prepared on: (a) radioactive material transport vulnerabilities; (b) radioactive material transport threat analysis methodology; (c) the behaviour of radioactive material packages under potential threat and the consequences thereof; and (d) the results of a Member State survey of security arrangements.

Activity IV.4: Establishing security standards for the transport of radioactive material

Outcome: Uniform international guidance on the security of transport of all radioactive materials

Main outputs: New safety standards requirements, "Security in the Transport of Radioactive Material", containing internationally recognized requirements for the security of consignments of radioactive material which are not currently in the existing Agency "Regulations for the Safe Transport of Radioactive Material", will be prepared.

Activity IV.5: Advisory services

Outcome: Clear understanding by States of their level of compliance with accepted international standards for the security of radioactive materials, other than nuclear materials, in storage, use and transport

Main outputs: ~~The~~ main outputs will be appraisals of the security of significant sources within IPPAS missions, resulting in recommendations for upgrading the security of significant sources and for the security of radioactive material in transport.

Activity IV.6: Locating and securing orphan sources

Outcome: Regulatory control of significant uncontrolled radioactive sources

Main outputs: Advice will be provided to Member States, upon request, in identifying, locating, securing and/or disposing of vulnerable radioactive sources.[6] In support of that assistance, technical criteria will be developed regarding when, where and how to monitor for radioactive material.

V: ASSESSMENT OF SAFETY/SECURITY RELATED VULNERABILITY OF NUCLEAR FACILITIES

Activity V.1: Safety/security of nuclear installations against malicious acts

Outcome: Reduction in the vulnerability of nuclear power plants and fuel cycle facilities to malicious acts

Main outputs: A methodology will be developed for identifying vital areas of nuclear facilities that would be vulnerable to malicious acts such as sabotage and acts of terrorism for addressing physical protection of vital areas of new nuclear facilities.

VI: RESPONSE TO MALICIOUS ACTS, OR THREATS THEREOF

Activity VI.1: Standards, guidelines and recommendations

Outcome: Ability of States to establish adequate procedures for operators and authorities to respond to terrorist acts involving nuclear material or other radioactive materials, nuclear facilities or transports

Main outputs: Guidelines and recommendations will be developed on responses to: (a) theft and illicit possession of, or illicit trafficking in, nuclear material, or threat thereof, (b) theft and illicit possession of, or illicit trafficking in, other radioactive material, or threat thereof, (c) smuggling of nuclear or other radioactive material and (d) an act, or a threat, of sabotage or terrorism against a nuclear facility or a nuclear transport that result in or threaten to result in a radiological release.

Activity VI.2: Strengthened radiological emergency response in States

Outcome: Capability of Member States to address radiological emergencies arising from malicious activities involving nuclear and other radioactive materials

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[6] If necessary and urgent, and subject to availability of funding under "Upgrades and Procurement", the Agency may assist in the implementation these activities.

Main outputs: Revised emergency response preparedness manuals will be issued. Emergency response exercises will be organized, and guidance on their preparation, conduct and evaluation will be provided. A training programme, including regional and national training courses and emergency response exercises, will be developed for staff in national emergency centres and for concerned law enforcement officers with response duties.

Activity VI.3: Enhanced Agency arrangements to respond to radiological emergencies

Outcome: Improved capability of Agency to address emergencies arising from terrorist activities involving nuclear and other radioactive materials

Main outputs: Agency emergency response arrangements will be improved with the specific aim of addressing radiological emergencies. Manuals will be issued and training provided (including the conduct of exercises for international response standby teams). Advice will be provided to Member States on the identification and characterization of seized nuclear and other radioactive material.

Activity VI.4: Advisory services

Outcome: Ability of States to establish effective response systems

Main outputs: A service will be offered, upon request, for evaluating State capabilities to respond to malicious acts and to the possible radiological consequences thereof.

VII: ADHERENCE TO AND IMPLEMENTATION OF INTERNATIONAL AGREEMENTS, GUIDELINES AND RECOMMENDATIONS

Activity VII.1: Encouraging States to adhere to and implement international instruments relevant to the enhancement of protection against nuclear terrorism

Outcome: Increased number of States having adhered to and implemented relevant international instruments and taken steps to establish the necessary legislative and regulatory system

Main outputs: Teams will conduct missions to specific States to hold meetings with policy makers to encourage Member States to adhere to and implement international instruments relevant to the enhancement of protection against nuclear terrorism, and to assist them in doing so.

VIII: NUCLEAR SECURITY CO-ORDINATION AND INFORMATION MANAGEMENT

Activity VIII.1: Nuclear security information and co-ordination

Outcome: Effective planning and implementation of nuclear security related programmes by the Agency and Member States

Main outputs: ~~More~~ complete information will be compiled and periodically updated to help direct and prioritize Agency nuclear security activities. An expanded information database will be established with information relevant to all types of malicious acts involving nuclear and other radioactive material and nuclear facilities. Analytical assessments of the information contained in the expanded database, including statistics, analysis of trends and observations, will be generated and shared with Member States. Procedures will be established, reviewed and maintained for the protection of the confidentiality of such information.

Activity VIII.2: Improved co-operation with other international organizations

Outcome: Effective co-operation and co-ordination with other international organizations

Main outputs: Better and more effective co-operation and co-ordination will be established with other relevant international organizations including in the development and implementation of the methodology for design basis threat assessment.